

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A6EU
Revision 7
NORD-AVIATION
Nord 262A Series

July 2, 1986

TYPE CERTIFICATE DATA SHEET A6EU

This data sheet, which is a part of type certificate No. A6EU, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder: AEROSPATIALE (Societe Nationale Industrielle Aerospatiale)
37, blvd de Montmorency
75016 Paris, France (formerly Nord-Aviation, S.A.)

I - Nord262A Series (Transport Category), approved March 15, 1965, for Model 262A-12.
Amended January 10, 1974, to include entire Nord 262A Series.

Engines 2 Turbomeca Bastan VI Model C-1 (Turboprop)
Reduction gearing, Engine: Propeller, 21.0909: 1

Fuel (Fuels shall conform to the specifications as listed or to subsequent revisions thereof) JP-1
American JP-1 ASTM Jet A and Jet A1
French TRO Norme AIR 3405
British D.Eng.R.D. 2453 - D.Eng.R.D. 2494

JP-4 (See NOTE 3)
American JP-4 MIL-T-5624 and ASTM Jet B
French TR4 Norme AIR 3407
British D.Eng.R.D. 2486 - D.Eng.R.D. 2454

Water/Methanol

Water/Methanol Mixture - 56% water/ 44% methanol by volume
Methanol Specification - American OM 232 Grade A
French AIR 3651
British D.Eng.R.D. 2491
NATO S747

Approved Fuel Additives

Phillips PFA/55 MB anti-icing additive in quantity up to 0.15% by volume.
Shell ASA-3 antistatic additive in quantity up to 0.0001% by volume.

Oil (Engine and Gearbox) American MIL-L-00.7808 and MIL-L-23699*
French AIR 3513, AIR 3514, AIR 3517* and AIR 3515*
British D.Eng.R.D. 2490 and D.Eng.R.D. 2487*
* The oil specifications marked with * should not be used below -30°C

Engine Limits

Rating (static sea level, ISA)

	Shaft Horsepower (shp)	Jet Thrust (lb.)	Engine Speed (r.p.m.)
WET Takeoff (5 min.)	987	180	33, 500
DRY Takeoff and Maximum Continuous (unrestricted)	987	180	33, 500

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Engine Limits (cont'd)

Engine Temperature Limits

Turbine Gas Temperature, T_4 (Jet Pipe)		
WET Takeoff (5 min.)	550°C	(1022°F)
DRY Takeoff and Maximum Continuous	530°C	(985°F)
Starting (Momentary)	650°C	(1202°F)
Oil Inlet Temperature (measured in tank)		
Minimum for applying power	15°C	(59°F)
Minimum in flight (steady conditions)	25°C	(77°F)
Maximum	85°C	(185°F)

Vibration Maximum Amplitude

30 microns (i.e. vibration indicator reading of 1.96 or of 50 percent.) (See NOTE 6)

Engine Speed Limitations

Nominal engine r.p.m.	99.4%	(33, 500)
Minimum Regulated r.p.m.	86 %	(29, 000)
Maximum Permissible r.p.m.	102.6%	(34, 600)
± 1 percent margin is permissible to allow for tachometer instrument error.		

Propeller and Propeller Limits

2 Ratier-Figeac Model FH-146, with 3 FH.106.200 blades each.
 Diameter 10.49 ft. (nominal)
 Minimum allowable for repairs 10,392 ft. No further reduction permitted.
 Pitch settings at .7 radius.
 Ground fine -1° 48'
 Flight fine 9° 54'
 Feathered 81°

Airspeed Limits (IAS)

V_{MO}	(Maximum Operating)	214 kts.
V_{FE}	(flaps down 35°)	127 kts.
V_{FE}	(flaps down 15°)	143 kts.
V_{LO}	(landing gear operation)	143 kts.
V_{LE}	(landing gear extended)	154 kts.
V_{MC}	Minimum control speed with the critical engine inoperative (propeller windmilling or auto-feathering)	86 kts. (ISA S.L.)
V_A	(design maneuvering)	133 kts.

C.G. Range (Gear Extended)

	Weight (lb.)	Forward Limits		Aft Limits	
		% Reference Chord	Sta.	% Reference Chord	Sta.
Takeoff	23, 370	20.9	312.5	30.0	323.6 (See NOTE 4)
	22, 930	20.3	311.4	30.0	323.6
Landing	20, 280	16.0	306.5	30.0	323.6
	18, 080	12.0	301.9	30.0	323.6

Reference Chord

The reference chord is the wing root profile chord at the center section = 122 in.
 Stations (sta.) are given in inches linear distance from datum.

Datum

The datum, or origin of moments, is Station 0 located 3 in. forward of the nose or 287 in. forward of the leading edge of the center section wing root.

Leveling Means

Leveling is provided by a bubble level, for both longitudinal and transverse directions, located at Fuselage Frame Sta. No. 11, approx. 4 in. below cabin floor. Access is gained by removing a floor panel.

Maximum Weights (lb.)	Model 262A-12 (See NOTE 4)	All Models Except Model 262A-12
Ramp	23, 050	23, 490
Takeoff (brake release)	22, 930	23, 370
Landing	22, 710	22, 710
Zero Fuel	22, 710	22, 710

Minimum Crew 2 - Pilot and copilot.

Maximum Passengers 29 - As limited by approved seating arrangement.

Maximum Baggage

Compartment	Arm (in.)	Capacity (lb.)	Max. Floor Loading (lb./sq. ft)
<u>Model 262A-12</u>			
A. (Fwd L.H.)	169.0	665	100
B. (Fwd R.H.)	169.0	720	100
C. (Fwd L.H.) (partial loading)	182.0	245	100
D. (Rear R.H.)			
(Upper Shelf)	530.0	162	15
(Middle Shelf)	530.0	148	15
(Lower Shelf)	530.0	206	30
<u>Model 262A</u>			
A. (Fwd L.H.)	173.0	660	85
B. (Fwd R.H.)	169.0	720	85
C. (Rear R.H.)			
(Upper Shelf)	528.0	132	15
(Middle Shelf)	528.0	132	15
(Lower Shelf)	528.0	165	30

Standard Fuel Capacity Two wing tanks, Sta. 344.0, each of 264 U.S. Gal usable. Airplane total usable fuel is 528 U.S. Gal.

Optional Fuel Capacity Two auxiliary fuel tanks, Sta. 344.0, each of 75 U.S. Gal usable. With the auxiliary tanks, airplane total fuel is 678 U.S. Gal. (See NOTE 2)
(See Note 1(c) for system and unusable fuel)

Water/Methanol Capacity One tank in R.H. landing fairing, Sta. 307.0, 205 lb. capacity. 28.29 U.S. Gal.

Oil Capacity Total system 5.8 U.S. Gal.
Tank capacity 3.2 U.S. Gal. quantity usable, 8 lb., for each engine located in annular tanks mounted in engine nose cowl, Sta. 216.0.

Maximum Altitude 19, 200 ft.

Other Operating Limitations The aircraft must be operated in accordance with the limitations presented in the SGAC (Secretariat General a l' Aviation Civile)-Approved Airplane Flight Manual.

Control Surface Movements

Elevator	Up	20°	16' ± 30'	Down	16°	17' ± 30'
Elevator trim tab	Up	6°	45' ± 1°	Down	6°	45' ± 1°
Elevator balance tab	Up	7°	17' ± 1°	Down	6°	30' ± 1°
Aileron	Up	18°	30' ± 30'	Down	13°	20' ± 30'
Aileron trim tab	Up	12°	± 1°	Down	12°	± 1°
Aileron balance tab	Up	6°	10' ± 1°	Down	4°	27' ± 1°
Rudder	Right	22°	± 30'	Left	22°	± 30'
Rudder trim tab	Right	15°	40' ± 1°	Left	15°	40' ± 1°
Rudder balance tab	Right	7°	20' ± 1°	Left	7°	20' ± 1°
Wing flaps	Outer	35°		Inner	25°	

Serial Nos. Eligible	The French Certificate of Airworthiness for Export endorsed as noted under "Import Requirements" must be submitted for each individual aircraft for which application for standard airworthiness certification is made. (See NOTE 7).
Certification Basis	<p>CAR Part 10 dated March 1955 and French Specification AIR 2051 as revised to June 15, 1963, certified by SGAC as equivalent to U.S. CAR Part 4b, effective December 31, 1953 plus amendments 4b-1 through 4b-14, Special Conditions as stated in FAA letters dated November 15, 1963 and January 19, 1964, and Special Regulations SR-422B effective July 9, 1959. Type Certificate No. A6EU issued March 15, 1965. Date of Application for type certificate: April 1, 1962.</p> <p>Compliance with the following optional requirements has been established: French Spec. AIR 2051 Sections equivalent to: Ditching provisions CAR 4b.361 Ice protection provisions CAR 4b.640</p>
Import Requirements	A United States Certificate of Airworthiness may be issued on the basis of French Certificate of Airworthiness for Export signed by a representative of the Secretariat General a l'Aviation Civile (SGAC) containing the following statement, "The airplane covered by this certificate has been examined and found to comply with French AIR 2051 Regulation effective June 15, 1963 and conforms to type certificate No. A6EU."
Required Equipment	<p>The basic equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the aircraft for certification.</p> <p>Model numbers of Nord 262 airplanes of the "A" series carry a dash number which identifies the particular customer configuration. Such configurations differ from the basic 262A type design primarily with regard to optional cockpit equipment and interior arrangement.</p> <p>NORD AVIATION Report 262 12 00 700 contains a list of required equipment for Model 262A-12. Nord Aviation Report 262A 00 700 contains lists of required equipment and optional equipment for Model 262A.</p> <p>In addition, the following items of equipment are required:</p> <p>Battery Temperature Control Installation, except for Model 262A-12, in accordance with Nord Aviation Modification No. 789 (Service Bulletin No. 26-10).</p> <p>For Model 262A-12, SGAC-approved Airplane Flight Manual, approved March 15, 1965, reissued May 31, 1965.</p> <p>For all Models except Model 262A-12, SGAC-approved Airplane Flight Manual for Nord 262A, approved June 10, 1966, reissued January 10, 1974.</p>
Service Information	Information essential to the proper maintenance of the aircraft, including retirement times of parts with a predetermined service life, is included in the Nord-Aviation NORD 262A Series Maintenance Manual. Service Bulletins, when approved by SGAC, will carry a statement to that effect. The Nord-Aviation Structural Repair Manual contains SGAC-approved information.

NOTES

- NOTE 1. (a) A current weight and balance report, including a list of equipment in certificated empty weight and loading instructions, must be provided for each airplane at the time of the original airworthiness certification and at all times thereafter (except in the case of operators having an approved weight control system).
- (b) The airplane must be loaded so that the C.G. is within the specified limits at all times with the effects of fuel usage and movement of crew and passengers from their assigned positions being considered.
- (c) The “drainable unusable” fuel is that amount of fuel in the tanks which is unavailable to the engines under critical flight conditions as defined in French AIR 2051 Regulation 5.16 (CAR 4b.416). This drainable unusable fuel does not include the “tank trapped fuel”. The total unusable fuel must be included in the airplane empty weight or be suitably accounted for in the airplane weight and balance report. The total volume of unusable fuel in U.S. Gal., with or without auxiliary tanks is:

	Airplane Total		
	<u>Vol. U.S. Gals.</u>	<u>Wt. lb.</u>	<u>Arm. in.</u>
Tank trapped	5.3	36	343.2
Drainable unusable	<u>0.0</u>	<u>0</u>	<u>0.0</u>
Total unusable	5.3	36	343.2

- (d) Engine system oil is the total oil less the quantity drainable from the tank and is the amount of oil normally trapped in the propellers plus the amount normally trapped in the engines after drainage. System oil must be included in empty weight. The undrainable oil in this airplane is negligible.
- NOTE 2 Series 262A airplanes are eligible for operation with the SGAC-approved auxiliary fuel tank installation comprised of Nord Aviation Modification Nos. 354, 393, and 394.
- NOTE 3 JP4 fuel, or any mixture of JP4 and JP1, may be used without readjustment of the engine fuel control unit. When operating with JP4 fuel, or with any mixture of JP4 and JP1, the performance and operating limitations presented for operation with JP4 fuel in Appendix I of the Airplane Flight Manual must be observed.
- NOTE 4 Model 262A-12 airplane may be operated at maximum ramp weight of 23, 490 lbs. and maximum takeoff weight (brake release) of 23, 370 lbs., in accordance with Airplane Flight Manual Revision No. 22, dated October 16, 1973. Cockpit placard must be modified in accordance with Nord Aviation N-262 Modification No. 603.
- NOTE 5 Series 262A airplanes embodying in the enlarged wing tips of SGAC-approved Nord Aviation Modification No. 640 (Service Bulletin 57-9) may be operated in accordance with the performance and operating limitations presented in Appendix V of the Airplane Flight Manual.
- NOTE 6 Series 262A airplanes may be operated with engine vibration indicators installed in accordance with Nord Aviation Modification No. 429/1 (Service Bulletin 77-1) or Modification No. 429/2 (Service Bulletin 77-2). If installed, graduation of the indicator must conform with the following:
- Mod. 429/1: Range from 0 to 5, with red radial line at 1.96.
- Mod. 429/2: Range from 0 to 100 percent, with red radial line at 50 percent.
- Series 262A airplanes which incorporate Modification No. 853 (Service Bulletin 77-11) shall be operated according to Service Letter 77-10 with engine vibration periodic ground checks to replace continuous inflight engine vibration monitoring.
- NOTE 7 SGAC-approved Aerospatiale Report No. DEP/CRA-21/74 (including SGAC (DGAC) approved revisions) titled, “Definition of Nord 262A Version for FAA Certification”, identifies modifications necessary for conformity with the approved type design of the Nord 262A series. This report also identifies mandatory modifications applicable to the initially certificated -12 version of the aircraft. Serial number effectivity of each mandatory modification is specified in the appropriate service bulletin.

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